

**Meeting Minutes:**

Recorded by: Joshua Cook (RecyclingWorks in Massachusetts) and Mike Elliott (MassDEP C&D program Coordinator)

NOTE: Copies of the presentation slides are available on the MassDEP C&D Subcommittee website which can be found at the following URL: <http://www.mass.gov/eea/agencies/massdep/news/advisory-committees/cd-subcommittee.html>.

The following agenda items were covered during the meeting:

**1) Welcome/Introductions**

- a) MassDEP welcomed participants in the room and on the webinar.
  - i) Participants in conference room: 16 (as recorded on meeting sign-in sheets)
  - ii) Participants on webinar: 7 (as recorded on webinar attendee report)
  - iii) Participants reflected a cross-section of stakeholders representing: C&D Processors; Waste Haulers; Recycling End-Market Outlets; Construction Project Managers, Consultants; Lawyers; Federal, State and Municipal Officials; Industry/Trade Associations

**2) Inbound C&D Material Trends over time**

- a) At the March 2017 C&D Subcommittee Meeting, Ted Seigler (DSM) reported that during the site visits for the 2016 C&D Market Study Report, he observed a significant increase in the amount of “dry bulky waste” showing up at C&D processors compared to the study DSM conducted in 2007. To verify that observation, MassDEP analyzed the inbound C&D material trends over time from 2009 – 2015. The trend chart which is found in the presentation slides confirms Ted’s observations. A few trends that are readily apparent are as follows:
  - i) Total inbound received increased by approximately 35% (1,100,000t to 1,500,000t)
  - ii) Mixed C&D waste rose only slightly, nearly flat (955,000t to 992,000t)
  - iii) C&D residual increased by approximately 67% (74,000t to 127,000t)
  - iv) Bulky/DTM increased by significantly, by approximately 12X (19,000t to 246,000t)
- b) Given the noticeable increase in Bulky/DTM showing up at C&D handling Facilities, MassDEP wishes to remind the regulated community of the following requirements:
  - i) Bulky/DTM is a separate distinct waste stream from Mixed C&D; therefore in order for a facility to be permitted to receive it, the Bulky/DTM waste stream must be specifically identified in the facility Authorization-to-Operate (ATO)
  - ii) If not yet recognized in the Facility ATO, then the ATO needs to be modified or the facility needs to stop accepting bulky waste loads.
  - iii) As a separate waste stream, Bulky/DTM is subject to the waste ban requirements; so each facility needs to have a facility-specific Waste Ban Compliance Plan (WBCP) on how Bulky/DTM will be managed when it shows up at the facility. It must describe how banned items will be separated and diverted from disposal. As ATOs come up for renewal, MassDEP will be checking WBCPs to ensure they include separation of banned items from Bulky/DTM.
  - iv) For any items that the facility is not authorized to recover under its ATO/WBCP, the facility will need to issue “failed-load” letters as would be expected of any other solid waste

management facility.

3) **C&D Facility Performance Standards**

- a) At the March 2017 C&D Subcommittee Meeting, several meeting participants remarked on the noticeably lower efficacy of recovering recyclable materials at C&D Transfer Stations as compared to C&D processors – 6% vs. 33% (DSM, May 2017). Steve Changeris (Mass Chapter of NWRA) reminded us that C&D Transfer Stations were originally conceived on the premise of partial recovery of recyclable materials, but then transferring the remaining mixed C&D waste to a C&D Processor for further processing and recovery. Going one step further, MassDEP prepared an outline of the high level performance standards that distinguish C&D Transfer Stations from C&D Processors. These appear in the corresponding presentation slides that were presented at the meeting.

4) **2010-2020 SWMP – review proposed C&D materials diversion objectives and actions**

- a) As MassDEP prepares to start the process of developing the next 10-year Solid Waste Master Plan (SWMP), the meeting participants reviewed the objectives and proposed actions that were memorialized in the current 2010-2020 SWMP in Section 3.5 “C&D Materials Diversion and Market Development”. The complete 2010-2020 SWMP (April 2013) is available on the MassDEP website at the following URL:  
<http://www.mass.gov/eea/agencies/massdep/recycle/reports/solid-waste-master-plan.html>.
- b) MassDEP reported good progress toward the overall C&D diversion objectives; both in terms of improvements in the recycling rate, and in terms of reducing the quantity of C&D materials being disposed. This progress is noteworthy against a backdrop of increased economic activity with a corresponding increase in C&D material generation, and contracting markets for wood recycling and energy recovery.
  - i) Comments from meeting participants on this topic included:
    - (1) Dan Moon (EBC-NE) and Jennifer Griffith (NEWMOA) both inquired what accounts for the improved performance of C&D material diversion despite the contracting wood markets. No-one knew for sure but some speculated that the following might have had an influence:
      - (a) Massachusetts C&D Processors have consistently found new ways to recover A wood and found other uses for B wood.
      - (b) Development by universities, hospitals and biotech firms in the Boston area has typically set high standards for materials recycling and reuse (e.g. LEED standards, etc.)
      - (c) Jenn Bayuk (Carney Environmental) added that the City of Boston requires all large commercial and institutional developments to conform to LEED standards even if they are not seeking accreditation.
      - (d) Jennifer Griffith (NEWMOA) opined that MassDEP’s strategic efforts, e.g. enforcement of waste ban requirements and investments in C&D processors through financial incentives, might also have contributed to the progress seen.
- c) MassDEP then reviewed a partial list of actions that had been identified in the 2010-2020 SWMP to support the objectives of the C&D Materials Diversion and Market Development Strategy.
  - i) Comments from meeting participants on this topic included:

- (1) Bill Murdock (Tafisa) described the limitation of the markets to handle all the clean wood generated across the region. Tafisa cannot absorb everything from southern New England to Canada. He also warned that the specs for Tafisa will only become more stringent in the future, thus further restricting the market capacity.
- (2) Paul Correia (NER) acknowledged that processors have nowhere to go with clean wood. By way of example, he spoke of NER generating 30 loads of Grade A wood this week, but only being allowed to ship 12 loads, which was further reduced at the last minute to 8 loads. This is a disincentive to producing clean wood in favor of ADC.
- (3) Jennifer Griffith (NEWMOA) inquired whether MassDEP has pursued MassDOT to loosen specs for use of recycled asphalt shingle (RAS) in asphalt pavement and road base. She mentioned that NHDOT has recently allowed certain uses for RAS.
  - (a) MassDEP reported that attempts in the past to modify MassDOT specs were largely unproductive; MassDEP opined that it might be more productive to pursue municipal engineering departments for use in secondary roads and parking lots, etc.
  - (b) Chris Carney (Carney/Patriot Environmental) described his frustration with years of effort trying to make changes to MassDOT specs. Even if MassDOT would allow RAS in asphalt binder layer, that would be an improvement. Chris asked for more support from MassDEP on this effort.
  - (c) Bill Turley (CDRA) announced that CDRA will host the 8<sup>th</sup> Shingle Recycling Forum in Cincinnati, OH next October (<http://www.shinglerecycling.org/content/8th-asphalt-shingle-recycling-forum>). This conference strives to bring together all stakeholders in the growing asphalt recycling industry. On behalf of CDRA, Bill offered to cover the travel cost for one official from MassDOT to attend the conference.
- (4) As concerns the development of the proposed C&D Action Plan that will be incorporated within the 2020-2030 SWMP, Rick Mazurek (NER) questioned whether the 50% recycled rate goal was realistic or if we should be establishing some other goal.
  - (a) MassDEP expounded on the inherent inconsistency of trying to measure and compare recycling rates over time - influenced by a range of variables including: light-weighting of packaging; waste stream characteristics; consumer habits; limited scope of material reporting (e.g. no reporting of ABC recycling or direct shipment of source separated materials, etc.) For these and other reasons, MassDEP is relying more on tracking the reduction of quantities in disposed in landfills as the best measure of diversion. So one of the desired outcomes of the proposed C&D Action Plan will be to develop the objectives and targets for the next 10-year planning period and how best to measure progress toward these goals.
  - (b) Bill Turley (CDRA) concurred with MassDEP and suggested that the industry leaders had already abandoned recycling rates in favor of “material flow analysis”.
- 5) **Proposed Modifications to Recycling/Diversion Rate Methodology**
  - a) MassDEP presented a series of slides describing how the C&D recycling/diversion rate has historically been calculated in the annual report summary data, as compared to a proposed methodology that incorporates some of the concepts of the DSM study recently completed. In the proposed methodology, rather than calculating the recycling/diversion rate as a fraction of all inbound materials, it is calculated as a fraction of only the inbound materials that originate as C&D material (e.g. mixed C&D waste, source separated materials, etc.). Thus any Bulky/DTM would be deducted from the denominator, and in an attempt to avoid double-counting,

transferred materials would continue to be deducted from the denominator as well. This proposed modification is intended to generate a more accurate representation of the actual recovery rate from the target C&D materials. The last slide in the series shows the expected impact of the new methodology on a hypothetical C&D processor and C&D Transfer Station, which in both cases, improves the recycling/diversion rate.

- i) Comments from meeting participants on this topic included:
  - (1) Jennifer Griffith (NEWMOA) asked if the proposed methodology wasn't creating a perverse incentive for facilities to inflate the quantity of inbound Bulky/DTM to make their numbers look better.
  - (2) MassDEP responded that it will continue to rely on enforcement the WBCP plans. If a facility is accepting Bulky/DTM, then it will need to have a material specific WBCP for that waste stream that will stipulate how banned items will be separated for diversion. The facility will be held accountable for compliance with the WBCP including "failed-load" letters when the inbound waste load deviates from what it is permitted to process.

#### **6) Announcements/Open Discussion**

- a) MassDEP reminded stakeholders that 2017 Recycling Business Development Grant Program application remains open until 5:00 pm on Friday, June 30. This program is intended to create sustainable markets for eligible materials, and add value to public and private recycling efforts. Based on the results of the recently completed DSM "2016 C&D Debris Market Study", the list of targeted materials in this year's grant application includes two materials highlighted in the DSM study:
  - i) C&D Wood
  - ii) Post-Consumer Bulky Rigid Plastic
- b) MassDEP reiterated the availability of the recently completed studies on the MassDEP website:
  - i) 2016 C&D Debris Market Study Report (DSM, May 2017):  
<http://www.mass.gov/eea/docs/dep/recycle/reduce/2016study.pdf> – focuses on opportunities to improve recovery of recyclable materials at C&D Processors.
  - ii) Construction & Demolition Materials Guidance (RecyclingWorks, April 2017):  
<https://recyclingworksma.com/construction-demolition-materials-guidance/> - BMPs for generators of C&D materials across the entire spectrum of re-use and recycling options.
- c) On May 1, MassDEP issued a revision to the Asbestos Inspection Protocol for C&D Processors and Large C&D Transfer Stations. The qualifications of the in-house "Asbestos Inspector" who continuously inspects inbound waste loads to prevent the handling and processing of asbestos containing materials has been changed. The qualified person no longer needs to be in possession of a valid DLS Asbestos Inspector Certification Card, but they are still required to fulfill the classroom training requirements and complete 40-hours of On-the-Job training under an experienced C&D Waste Load Inspector to be qualified to serve that function. A copy of the revisions to the asbestos inspection protocol is posted on the MassDEP website at the following URL: <http://www.mass.gov/eea/docs/dep/recycle/laws/aiprotocol.pdf>.
- d) Bill Turley (Executive Director of CDRA) updated the group on three topics of interest:
  - i) Quebec study on options to reuse Fines generated by C&D Processors: recommends that the Ministry of Environment consider allowing use of C&D fines to reclaim quarries and sand & gravel pits provided certain BMPs are met:

- (1) Homogenize product consistency
- (2) Size to less than ¾ inch
- (3) Remove gypsum and asphalt shingles
- ii) Role of C&D Biomass in Zero Waste Programs: CDRA continues to track this closely. As reported last time, CDRA contends that the product produced by C&D processors, who follow BMPs, is far superior to many other materials that serve as feedstock for biomass boilers.
- iii) OSHA Employee Silica Exposure Rule: applies to concrete recycling, gypsum wallboard recycling, and anything with any silica content. The rule was supposed to be implemented this month, but the current Administration in Washington D.C. pushed back implementation until September to allow time to review the rule and/or change the rule. Notwithstanding that stay, certain states (e.g. KY and VA) have already started to implement the rule in its current form.
- iv) USGBC/LEED Recycling Credits: CDRA continues dialogue with USGBC on LEEDv4 protocol. USGBC is considering that C&D Processors will need 3<sup>rd</sup> party certification for projects to be awarded recycling credits under LEED.

**7) Closing/Next Steps**

- a) Potential topics for next C&D Subcommittee Meeting:
  - i) Ideas and Proposals for C&D Material Management Action Plan, to be incorporated in the 2020-2030 SWMP under development.

**8) Next meeting**

- a) TBD but in about 4 months time (ca. October 2017)